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## The possible role of apoptosis in the pathogenesis of chronic adenoiditis and adenoid hypertrophy

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**Objectives:** Waldeyer ring, forming the mucosal lymphoid tissue, is the first line of defense to the microorganisms in the respiratory tract. These microorganisms cause recurrent infections of the lymphoid tissue. Chronic tonsillitis and adenoiditis is the persistent inflammation of the adenoid that occurs due to recurrent, acute or subclinical infection. The recurrent and chronic inflammation of adenoid and palatine tonsils results in hypertrophy. Apoptosis provides an important balance between lymphocytes in lymphoid tissue.

**Study design:** The aim of this study is to investigate the efficacy of apoptosis in the pathogenesis of adenoid hypertrophy and chronic adenoiditis. 46 patients who have chronic adenoiditis and adenoid hypertrophy underwent adenoidectomy. The specimens were examined immunohistochemically. Adenoids were evaluated according to the percentage of space which they occupy in the postnasal space. Apoptotic cells were counted in 3 different microscopic fields and taken their average for every microcompartment of adenoid.

**Results and Conclusion:** As a result of immunohistochemical staining, hypertrophic and non-hypertrophic adenoids were compared for their apoptotic cell rate. The difference between these two groups is statistically significant (p<0.05). In the light of these findings, it was concluded that apoptosis plays role in the pathogenesis of adenoid diseases.

## **Biography**

Merih Onal has completed her medical education at Hacettepe University Medical Faculty and she has completed her specialist training at Hacettepe University Medical Faculty Ear Nose Throat Department on 2014. She has more than 5 publications in various journals.

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